

WHAT IS CLAIMED IS:

1. A silver halide photographic emulsion comprising silver iodochlorobromide tabular grains each having (111) faces as main planes thereof, wherein 70% or more of the total projected area of all the grains contained in the emulsion is occupied by grains each meeting conditions (i) to (iv) below:

(i) a hexagonal tabular grain whose ratio of the length of an edge having the maximum length with respect to the length of an edge having the minimum length, is 2 or less,

(ii) an epitaxial junction portion having a silver chloride content of 5 mol% or more and 25 mol% or less, is provided on at least one apex portion of the hexagon,

(iii) a silver chloride content thereof is 0.5 mol% or more and 6 mol% or less, and

(iv) a silver iodide content thereof is 0.5 mol% or more and 10 mol% or less.

2. The silver halide photographic emulsion according to claim 1, wherein the silver chloride content of the epitaxial junction portion is 10 mol% or more and 20 mol% or less.

3. The silver halide photographic emulsion according to claim 1, wherein the silver iodide content of the epitaxial junction portion is 1 mol% or more and 10 mol% or less.

4. The silver halide photographic emulsion according to claim 3, wherein the epitaxial portion was formed by adding a silver iodide fine grain emulsion prepared immediately before the addition thereof.

5 5. The silver halide photographic emulsion according to claim 1, wherein each of the grains occupying 70% or more of the total projected area further meeting condition (v) below:

10 (v) an equivalent-circle diameter thereof is 0.3  $\mu\text{m}$  or more and the thickness is 0.2  $\mu\text{m}$  or less.

6. The silver halide photographic emulsion according to claim 1, wherein the variation coefficient of equivalent-circle diameters of all the grains contained in the emulsion is 30% or less.

15 7. The silver halide photographic emulsion according to claim 1, wherein each of the grains occupying 70% or more of the total projected area further meeting condition (vi) below:

20 (vi) an equivalent-circle diameter thereof is from 0.5  $\mu\text{m}$  to 1.2  $\mu\text{m}$  and a thickness thereof is 0.1  $\mu\text{m}$  or less.

25 8. The silver halide photographic emulsion according to claim 1, wherein the grains occupying 70% or more of the total projected area further meeting condition (vii) below:

(vii) no dislocation lines are present anywhere other than the epitaxial junction portion.

9. A silver halide photographic emulsion comprising silver iodochlorobromide tabular grains each having (111) faces as main planes thereof, wherein the tabular grains each having a ratio of (111) face to the side surfaces of 75% or more, and 70% or more of the total projected area of all the grains contained in the emulsion is occupied by grains each meeting conditions (i), (ii'), (iii) and (iv) below:

(i) a hexagonal tabular grain whose ratio of the length of an edge having the maximum length with respect to the length of an edge having the minimum length, is 2 or less,

(ii') an epitaxial junction portion is provided on at least one apex portion of the hexagon,

(iii) a silver chloride content thereof is 0.5 mol% or more and to 6 mol% or less

(iv) a silver iodide content thereof is 0.5 mol% or more and 10 mol% or less.

10. The silver halide photographic emulsion according to claim 9, wherein the epitaxial junction portion has a silver chloride content of 5 mol% or more and 25 mol% or less.

11. The silver halide photographic emulsion according to claim 10, wherein the silver chloride content of the epitaxial junction portion is 10 mol% or more and 20 mol% or less.

12. The silver halide photographic emulsion

according to claim 10, wherein the silver iodide content of the epitaxial junction portion is 1 mol% or more and 10 mol% or less.

13. The silver halide photographic emulsion according to claim 12, wherein the epitaxial portion was formed by adding a silver iodide fine grain emulsion prepared immediately before the addition thereof.

14. The silver halide photographic emulsion according to claim 10, wherein the ratio of (111) face to the side surfaces is 85% or more.

15. The silver halide photographic emulsion according to claim 10, wherein each of the grains occupying 70% or more of the total projected area further meeting condition (v) below:

(v) an equivalent-circle diameter thereof is 0.3  $\mu\text{m}$  or more and the thickness is 0.2  $\mu\text{m}$  or less.

16. The silver halide photographic emulsion according to claim 10, wherein the variation coefficient of equivalent-circle diameters of all the grains contained in the emulsion is 30% or less.

17. The silver halide photographic emulsion according to claim 10, wherein each of the grains occupying 70% or more of the total projected area further meeting condition (vi) below:

(vi) an equivalent-circle diameter thereof is from 0.5  $\mu\text{m}$  to 1.2  $\mu\text{m}$  and a thickness thereof is 0.1  $\mu\text{m}$

or less.

18. The silver halide photographic emulsion  
according to claim 10, wherein the grains occupying 70%  
or more of the total projected area further meeting  
5 condition (vii) below:

(vii) no dislocation lines are present anywhere  
other than the epitaxial junction portion.

19. The silver halide photographic emulsion  
according to claim 9, wherein the ratio of (111) face  
10 to the side surfaces is 85% or more.

20. The silver halide photographic emulsion  
according to claim 9, wherein host tabular grains on  
which the epitaxial junction portion is deposited were  
formed by adding a silver iodide fine grain emulsion  
15 prepared immediately before the addition thereof.

10034077 010302